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Semeijn, M.; Heng, S.H.; Derksen, F.E.J.M.

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The Information Dimension of Inter-Organizational Integration

Maarten Semeijn
Michael S.H. Heng
Frank Derksen

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The Information Dimension of Inter-Organizational Integration

Maarten Semeijn, Michael S H Heng*, Frank Derksen
Faculty of Economics
Vrije Universiteit Amsterdam

* correspondent author, email: sheng@econ.vu.nl

Abstract *An important question in business partnership is the issue of information - the gathering, supply and use of information and what kind of information in order to promote a successful partnership. This paper examines the problems that arise in a major form of partnership, namely integration, and the use of information to cope with the problems. We examine the types of information needed in inter-organizational integration, based on unstructured interviews. The problems identified by the interviewees are those related to values, intentions, power, competencies, partners' relations with other parties, finance and nurturing the relationship. The information needed to cope with such problems are described using the 7-S model of McKinsey. The answers provided by the interviewees suggest that they deal with hard and soft information, concern different organizational levels and different time spans. Soft information is particularly crucial because it is this type of information that builds a strong relationship and a good atmosphere for co-operation.*

Keywords IS integration; information; inter-organizational information systems

INTRODUCTION

Recent trends and developments in business practice push companies into developing closer inter-organizational partnerships. Rockart and Short (1989) describe five main competitive forces driving the need to manage partnerships, namely, globalization, time to market, risk management, service, and cost. This new organizational phenomenon is gaining interest in organizational literature. See for example Buzzell and Ortmeier (1995), Glaister and Buckley (1996), Henderson (1990), Konsynski and McFarlan (1995), Miles and Snow (1992). Partnership has been studied from a transaction cost economics point of view (Williamson 1975), but the existence of organizations and thus of partnerships cannot be explained solely by the transaction cost economics (Ghoshal and Moran 1996). There are other drivers and motives for economic organization. Transaction cost economics tends to focus on the hard aspects while neglecting the soft motives.

A partnership may be perceived as a virtual organization because the partners collaborate whilst they stay as independent organizations. In virtual organizations trust is a major element in organizing (Handy 1995). Another element is information. A lack of trust results in a higher need for information and vice versa (Chiles and McMackin 1996). However, the types of information needed in this kind of virtual organization have not been widely discussed in literature. Moreover one cannot take the innocence of whatever available information for granted. In the words of March (1994): "Since the providers of information have preferences and identities that differ from those of the decision maker, they have reasons for shaping the information. Since the decision maker has no direct way to check the accuracy of the information provided, there is an information problem for the partnership." The aim of this paper is to study the information that is needed to support inter-organizational integration. We believe that we have to understand information

needed well before we proceed further to use IT-based systems to support the integration. We will describe this information from a broad perspective, examining the different types of information that are needed to support integration. This information is useful in establishing and maintaining a sound relation between the partners involved.

Inter-organizational integration is a special form of inter-organizational partnership. In recent years a lot has been written about partnerships and studies have come up with different terms to classify the main characteristics of the partnership. One useful definition is: "The term partnership is used to describe a working relationship that reflects a **long-term** commitment, a sense of mutual cooperation, shared risk and benefits, and other qualities consistent with concepts and theories of participatory decision making" (cited in Henderson 1990). This paper concentrates on the integration in the partnership and we use the term inter-organizational integration to refer to *the actual connections that are made to enable the working relationship between partners to take place*. The inter-organizational integration expresses how the partners are tied together.

Active collaboration between independent partners implies that mechanisms -structures, processes, and skills - are needed for bridging boundaries and for gaining real value from the partnership. Integration implies that some of the elements of the independent companies will be tied together. Therefore we first look at the elements that form independent organizations. These elements will then be examined at the inter-organizational level, with the help of the **McKinsey 7-S** organizational framework (Watson 1983). The reason for using this model is that it **focusses** on both the hard and soft elements which form an organization, and that it has been recommended by the interviewees who have found it convenient to articulate their thinkings on the theme of this paper.

Integration means that the elements which form one single company get related to the partner. Not all the elements need to be integrated and they need not be integrated completely. We wish to study which elements are integrated, and how they are integrated - all these as part of the effort to find out the information that is needed to support the inter-organizational integration. This information is classified by each element of the 7-S model that can be integrated. For each element there were several kinds of information needed. The kinds of information are not only hard. Soft information appeared to be important in developing and maintaining a sound partnership through difficult times. Besides soft information can help in problems avoidance. The independent partners are different in many ways, almost by definition. Information about those differences (e.g. cultural) and how to cope with them can enhance integration success.

In the next section we will describe the research method used for this study, to be followed by the research findings in the subsequent two sections. The final section is the conclusion.

RESEARCH METHOD

The basis of this paper is a broad literature study into the different aspects of partnerships. During this study it appeared that literature concerning integration and information in partnerships is scarce. In order to enhance our understanding on these subjects nine extensive interviews were held. These interviews had the form of discussion and reflection. They can be seen as a learning process; the ideas gained and the issues discussed in one interview were used and tested in the subsequent interviews. The interviewees have all had university education and currently hold management functions in Dutch companies (such as business executive, corporate information officer, director of automation, head of

strategic management).

In the first three interviews the focus was on gaining insight into the important aspects of **partnerships**. During these interviews the importance of **integration** appeared and the need for some sort of a theory on inter-organizational behavior was felt. Hence the idea of using the 7-S model in an inter-organizational context was born. This idea was further examined by consulting literature and by developing a different angle to study partnerships, namely the angle of integration. This idea was then tested in subsequent interviews, in which it appeared very rewarding to study the partnerships from an integration point of view. In all the subsequent interviews the 7-S framework in an inter-organizational context proved to be useful.

This study gives an overview of the problems in business integration rated as important by the interviewees. In the literature that was studied, we came across some problems too, but they tend to focus on the necessary aspects for success, rather than on the reasons for problems. In contrast this study wants to give a more complete overview of the problems that can arise in business integration.

The main focus in the interviews was the information that the managers need in order to establish and maintain a sound partnership relation. This has been researched by extensive discussions in the interviews. The findings are reported in the next two sections.

PROBLEMS IN PARTNERSHIP

It is almost natural for problems to arise when partners actually cooperate in order to realize the goals of the partnership. The partners have to virtually integrate, which entails risks to the parties involved. Often the success depends very much on the active co-operation and contributions of the participating partners. Studies show high failure rates for the different types of partnerships, which can be as high as 80% (Bleeke and Ernst 1995). It is also common that a partnership ends up as a sale by one of the parties. The following paragraphs give a short categorized overview of the main problems in partnership that are identified by the interviewees as important.

Problems in the basic values of partnerships

Trust Trust is a critical issue in building and maintaining partnerships (Buzzell and Ortmeier 1995). A lack of trust makes it almost impossible for partners to overcome the problems that might arise during the cooperation. The importance of trust was stressed during interviews and can also be found in literature (Fukuyama 1995).

Commitment Only relationships with full commitment on all sides endure long enough to create value for the partners (Kanter 1994). In interviews commitment is often regarded together with trust.

Collaboration The partners value the skills that they bring to the alliance and it is the sharing of these skills that creates the value of the partnership. Interviews state that collaboration is needed in order to bring all the skills together.

Prisoner's dilemma and opportunistic behavior The partners that work together are often potential competitors. This contradiction can cause problems, which in literature has been discussed as the "prisoner's dilemma" (For further reading on how to deal with this problem, see: Johnston and Lawrence 1988, Gulati et al 1994).

Problems with underlying intentions

Changes might occur in time, the initial intentions of the partnership might become obsolete. Examples based on interviews are a change in business conditions, technology, markets or strategy.

Second thoughts In one interview it appeared that problems might arise when one of the partners has second thoughts about the partnership. The consequence is that the partners try to withdraw from their obligations or behave opportunistically. This problem can especially be the case when the exchange of know-how is concerned.

Conflicting interests The partners who choose to work together in order to reach a certain goal might have different interests in the cooperation. These differences can obstruct a partnership (see Gomes-Casseres 1994, Bleeke and Ernst 1995).

Problems with the cooperative relation

Not managing the relationship The literature states that it is important that the relationship between the partners is developed (Kanter 1994, March 1994). Interviews confirm that a partnership is also based on social relations and that these relations should be managed and nurtured.

Personal problems Employees from the different companies might have problems in executing the cooperation. Besides employees at different levels within the company might not agree on the reasons for the partnership. These problems might undermine the partnership.

Cultural misunderstanding Different companies and different countries mean that there are different corporate and country cultures. In an interview it was stated that partners with cultures that differ a lot often appear to be incompatible. See also Lewis (1990).

Problems with power

Balance of power Lack of balance in the relation is not a sound basis for cooperation. The result can be that one partner buys up the other (Bleeke and Ernst 1995).

Problems of dependency and independency In partnerships partners run the risk of becoming overdependent. A more or less similar problem can be the fact that partners lose (a part of) their independency by partnership.

Problems with the external relation of the partnership

Partners engaging in other contradictory partnerships This is a problem that can be distinguished in more recent business practice. As last years partnerships in non-related businesses become more common there exist complicated webs of companies collaborating in many different partnerships. This multi-partnerships may be conflicting.

Client-supplier relation with partners Besides the former problem, it also appeared during interviews that difficulties might arise when there is a client-supplier relationship as well as a partnership in which the same client and supplier are involved. The result is two different relationships with the same parties in which a conflict in one of the relationships

might cause trouble in the other relationship as well.

Problems in connecting partners

Integration problems The different parties might have different infrastructures (technological structure) which may hold back progress in integration (Rockart and Short 1989). In this case certainly the integration at the level of the information technology deserves special attention (Henderson 1990, Scott Morton 1991, Rockart and Short 1989). In interviews, and in literature (e.g. Henderson 1990), managers often regard organizational linkage as a determinant in the partnership.

Incompatibility of culture or style Very often managers stress the importance that cooperation can only be created if both companies have things in common that make them connectable. Style and culture must certainly be compatible for sound cooperation.

Structural adaptation For the implementation of some forms of partnerships, like the integrated manufacturing (JIT), the partners must have a business structure that they can fit together for cooperation. This is not only acknowledged in the interviews but also broadly stated in the literature (Duimering et al. 1993, Miles and Snow 1992). The structure must provide incentives for performance (Gomes-Casseres 1994) and ensure fairness and division of profit (Konsynski and McFarlan 1990).

Wrong control mechanisms, procedures and rules The partnership needs adequate control mechanisms, procedures and rules to manage the interdependence between the parties. Besides, partnerships rely on interpersonal connections and internal infrastructures that enhance learning (Kanter 1994). In interviews it appeared that these controls can be a substitute for trust and commitment.

Problems in competencies

Loss of skills or control Especially in the outsourcing partnership there are three risks that might create possible problems. These three risks are the loss of critical skills or developing the wrong skills, the loss of cross-functional skills, and the loss of control over a supplier (Quinn and Hilmer 1994). Though this problem does not appear to trouble the interviewees, it must be taken into account because the consequences can be big.

Problems in finance

Money The most common conflicts always occur over money, thus over economic and financial issues. A few examples are capital infusions, transfer pricing, licensing fees, compensation levels and management fees (Kanter 1994). In the interviews the importance of a solid contract was stressed.

Wrong performance measuring methods and reward systems The use of wrong performance measuring methods and reward systems might be a barrier to success (Buzzell and Ortmeyer 1995) and result in dissatisfaction or even feelings of injustice by one of the parties. The companies need to find a practical solution to measure the benefits and to divide them between the parties

INFORMATION NEEDED

Having seen the problems that might arise in the partnership, we need to focus on how the partners make sure that their partnership run smoothly. Information is needed to monitor

the cooperation and to check if the goals of the partners are still compatible. The types of information needed are described using the 7-S framework.

Strategy

- Actual strengths and changes
The initial agreement is based on assumptions and expectations toward the partner. The different strengths on which the strategy was built might change and for this reason the true value of the partnership may change. The partners need information on the strengths of the partner and how they develop in order to assess if the partnership is still valid.
- Market information, performance and position in the sector
The parties involved certainly need information on the functioning and health of their partners. Information on the position of the partner in the sector, information on the market and past achievements of the partner in the market and information on the business performance can suit this purpose.
The information is needed to check how the partner is doing, what the future perspectives are and how this might affect the partnership.
- Goal conformity
The partners state a mutual goal (strategy) for the cooperation. However each of the partners goals need not be the same. For this reason information on the goals of the partners is useful in order to find out what the partners intentions and motives are and if they are in conformity with the mutual goal.

Structure

- Contacts of the partners
The parties involved need information on the relations and ties of the partners with other companies. Now more and more companies go into partnership there is a possibility that a partner might engage in another (conflicting) partnership or might have ties with “wrong” companies. When one of the partners engages in a conflicting partnership the result will be that the structure of the partnership will be conflicting too. Not only is information on other partnerships needed, but information on the suppliers and clients can also be important.
- Technical information
The exchange of technical information is essential in cases when technical infrastructures have to be connected. The information technology in this case is also important because different IT infrastructures can be difficult to integrate.
- Actions and responsibilities
Especially in outsourcing like partnerships it is important to have information on the partners actions. As the partner in turn might also outsource, important information about performance and responsibilities can be scattered and in the end even unavailable. Not being able to obtain this basic information can be seen as a structural deficiency of the partnership.
- Decision making processes and informal structure
The inter-company decisions that are taken in the partnership need to be discussed on a intra-company level. For this reason it can be of value to have information on the internal decision making processes and on the informal structure (the political- and power structure) because this structure can be different from the official company structure. A hierarchical company for example can hardly be integrated with a decentralized company.
- Influence
The influence of the different parties is reflected in the structure of the partnership. An appropriate structure is applied that fills in the influence relation. But information is

needed because the influence of one of the partners might change, which can eventually end up in one of the partners buying up the other. So it is important to have information on the influence of the partners. Often one of the partners ends up being bought up, though this was not the intention when the cooperation started.

System

- Process and procedure

Information about the partners' processes and procedures and their status is needed. Partners integrate and this has consequences for the mutual processes and procedures. The partners need insight in their functioning for better understanding and connectivity. This is of main importance in partnerships with a high operational integration e.g. in case of JIT or integrated manufacturing.

- Contributions

Information on the contributions of the partners is needed to check commitment and involvement, and to avoid the risk of being exploited. Besides it is necessary to know what the partners contribute in order to know how the final benefits should be divided between the partners. For this purpose the partners need to develop an accurate system that gives information about the contributions of the partners.

- Performance

Many partnership agreements have specified levels of performance that must be achieved by the partners. Not achieving these levels might result in a penalty (financial) or even in termination of the partnership. For this reason the partners often seek for information on the partner's performance or for information to control the given performance figures.

Style

- Culture

A good cultural match between partners seems to be of significant importance for the success of the partnership. Therefore we need information on the corporate culture, why is the culture like that and what are they trying to reach by it? By answering these kinds of questions the parties can develop better understanding of their partners behavior. Moreover the partners can use information on how to handle cultural differences, for instance if one of the partners is from a foreign country.

- Organizational style

Different companies have different organizational styles. Information on the organizational style of the partner can be of value as for a good cooperation the partners need to be able to "speak the same language". The question is how the partner organizes business and how we can effectively cooperate.

- Leadership style

The leaders in the company should share sufficient information with the stakeholders. A partnership might mean risks and changes and in order to take worries away and to keep all the stakeholders involved enthusiastically, it is important to exchange and share information.

Skills

- Innovation, learning and knowledge development and transfer

Successful partnership often means the development of skills and abilities of your partner. For this reason it might be desirable to give the partner information in order to let him develop his knowledge and learn during the partnership. Sometimes this is done by transfer of know-how (specialized information). Information sharing and skills is specifically important in partnerships with an innovative character.

- Core competencies

What are the core competencies (skills) of the partner and are the skills complementary to the skills of the other partners, can the combination of the different skills create value for the partnership. Even more important: are the complementary skills also appreciated by the market?

- Loss of skills
Information to control the skills is necessary when there is a risk of loss of important skills. The managers need to check if they don't lose skills because of partnership.
- Financial skills
This kind of information is needed because financial distress can harm the partnership and in doing so might harm the partners. Important financial information can be derived from the annual reports and the financial ratios. This information is certainly important if there are payments between the partners.
- Productional skills
Information about the productional skills of the partner is important in partnerships in which output of one of the partners is the input for another and when the production of one of the partners has influence on the other. Information on quality standards, production methods, delivery procedures, etc. are examples.

Staff

- Trust and commitment
It is hard to define which information builds trust and commitment, but these two factors are highly important for the success of the partnership over time and for the stability and endurance of the relation. Information that builds trust and commitment will mostly be soft information which will appear from interpersonal contacts.
- Goals and their perception
The staff members of the different partners state a mutual goal for the cooperation. However the perception of this common goal can be different. The partners need to seek clarification about how the other parties involved perceive the common goal.
- Support, competence and stability of the management
Is the representative of the company still supported by his stakeholders and is the representative of the partner still competent to make decisions? A change in management might imply a changing attitude of the partner, so the stability of the management has implications too. The partners need to know if the decisions taken have long term implications and will not be aborted for any of these reasons.
- Individual interests
In order to know whether an intra-company decision gets supported it might be useful to know the individual interests of the staff-members involved. Besides it can also be interesting to know the influence of the different members.

Shared values

- Compatibility
Information on the values of the partners, what they stand for and what their aspirations are can be helpful. When the different parties share the same values chemistry can be the result. The relationship will be stronger and problems can be overcome. Information on the compatibility of the different values and how to combine them can attribute to the success.
- Assess accuracy and viability
In some cases a large part of information is needed to assess the accuracy and viability of the information provided by the partner. This depends on the case. For instance in a partnership with a well-known and established firm and lots of trust and commitment less information is needed. But in most cases information is used in order to examine the reliability and the values of the partner.

- **Misuse/opportunistic behavior**

As there will always be a risk of opportunistic behavior the partners will need information to confirm that the partners are not misusing the partnership. One needs to assess whether the partners share the same values. The partner might also look for signs of unilateral **commitment** built on close interpersonal contacts to receive the information or rely on contracts.

Specific information

There can always be individual preferences which might raise the need for different kinds of information. Most of the times these individual preferences have strong links with the compatibility. In other words by these individual preferences they seek partners that can match each other well. Examples of preferences are: reputation, partnership history, government regulations, innovative character and leading market position.

CONCLUDING REMARKS

An important question in business partnership is the issue of information • the gathering, supply and use of information and what kind of information in order to promote a successful partnership. This paper examines the problems that arise in a major form of partnership, namely integration, and the use of information to cope with the problems. Quite understandably, one is cautious about supplying information to business partners for reasons of protecting the privacy of customers, to safeguards one's autonomy and special know-how. But by not sharing information with partners, they might not be able to function optimally, or they might bear the nasty consequences of one's over-extended involvement with many sub-contractors. The serious nature of the diverse problems justifies that we pay close attention to the information aspects of inter-organizational integration. The answers provided by the interviewees suggest that they deal with hard and soft information, concern different organizational levels and different time spans. Soft information is particularly crucial because it is this type of information that builds a strong relationship and a good atmosphere for cooperation.

By way of conclusion, we suggest two topics for further research • (a) the information dimension during the setting *up* of partnership, (b) a comparative study of information aspects of partnership in different cultural environments.

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